



State of Tennessee  
Department of Environment and Conservation  
Division of Solid Waste Management - Hazardous Waste Program  
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## INSTRUCTIONS FOR ITEM 6 OF FORM WSR - HAZARDOUS WASTE REDUCTION

### ITEM 6 - HAZARDOUS WASTE REDUCTION

This report becomes your Annual Summary Information Report which is public information. Do not submit a copy of your Waste Reduction Plan or Annual Progress Report as that is your confidential information.

#### 6a THIS YEAR RATIO

Calculate this year's ratio for this waste stream by dividing the year's hazardous waste generation (see 3a) by the production achieved in standard production units. The "standard production unit" is set by you as a unit of measure of production for this waste stream and is set in your reduction plan. It is standard in the sense that you are to consistently use it in all future reporting. Try to design it so as to scale the results to a number between 1,000 and .001. You may have a different standard production unit for each waste generated. It should be meaningful to your operation, but may be adjusted to protect confidential business information. As long as your standard unit of measure is known only to you and is not disclosed, your actual levels of production cannot be derived from this report and your confidential business information is protected. Do not record your standard production unit on this form. All existing large and small quantity generators (LQGs and SQGs) are required to answer item 6. New generators have up to two years to stabilize their operations and determine their status for the purposes of the Hazardous Waste Reduction Act. [All generators are still required to notify the Department within 90 days of new generation.] Then, a waste reduction plan is due a year later or March first following, whichever is later. An annual report is to be submitted each year after notification, but this section on waste reduction needs to be completed for the years after the waste reduction plan is first due. The "**Standard Production Unit**" is set by you as a unit of measure of production for the specific process that generated this waste stream. It is standard only in the sense that you are to consistently use the unit of measure in all further reporting for this waste stream. Your standard production unit for this waste stream is to be set in your reduction plan. If it must change, describe the reasons for the change in line 6g, but not what the new measure is. Use the revised standard unit to report this year's waste reduction data. Also, submit revised annual reports using the new standard unit for the past three years or to the beginning of reporting based on the waste reduction plan implementation, whichever is most recent.

#### 6b GOAL YEAR RATIO

Calculate your goal year ratio by dividing your goal hazardous waste generation in kilograms or pounds by the goal production in standard production units. If no numeric goal has been set for this waste stream, describe your efforts to set it in item 6g.

#### 6c GOAL YEAR

Record the year in which you seek to meet your reduction goal.

Do not record your standard production unit on this form but only the resulting ratios on item 6. Do not show the ratios as fractions (e.g. 300/1000), but you may show numbers with decimals (e.g. .300). Try to design the standard production units of measure so as to scale the results to a number between 1,000 and .001. Example: An automobile service shop has a parts washer and has chosen to set a standard unit of measure equal to 10 work orders completed. While not every work order requires the use of the parts washer, most do and work orders are conveniently measurable. The number 10 is chosen to hide actual level of work done from competitors, although a competitor may have chosen a different standard production unit, namely barrels of clean parts washer utilized.

In this example one standard unit of production equals 10 work orders. The total number of work orders completed last year was 9,100. The number of standard work units is 9,100 work orders divided by 10 which equals 910 standard production units for last year.

The amount of waste from the parts washers was 5,200 kilograms last year. The actual ratio is 5,200 kilograms of waste divided by 910 standard production units which equals 5.7. Report the actual ratio as "5.7" and not "5200/910".

The shop intends to give the mechanics specific additional training in conserving the parts washer and hopes that in 3 years that the same level of work will result in only 4,100 kilograms of waste. Therefore, the goal ratio is 4,100 kilograms divided by 910 standard production units which equals 4.5. Report the goal ratio as "4.5" and not "4100/910" or "4100/9100 work orders."

The principles remain the same for other businesses. However, a dry cleaner may use hundreds of pounds of laundry for a standard unit of measure. A hospital may report in patients, patient-days, tests administered, doses given, etc. A manufacturer may report in boxes, cases, units, 1000's of items shipped, reams, tons, etc. In each case, the standard unit of production is chosen by you for this waste stream and can remain known only to you. Once chosen, it is to be used consistently for reporting your waste reduction activities. Its use does not disclose your levels of production and the unit should not be disclosed on this form. However, if you write it on this form, be aware that these reports are public records and are subject to full disclosure.

#### 6d WASTE / TOXICITY REDUCTION EFFORT CODES

List one or more letter codes below to identify the efforts undertaken to reduce the volume and/toxicity of this waste. Include efforts taken in prior years that affected this year. Waste management after generation, handling methods or dips in economic cycles are not considered source reduction. Only in-process recycling counts as source reduction after the waste is generated.

- |   |   |                                       |                     |
|---|---|---------------------------------------|---------------------|
| <b>a.</b> Reformulation/redesign of product         | <b>c.</b> Equipment/technology modification | <b>e.</b> Improved operations         | <b>g.</b> No effort |
| <b>b.</b> In process recycling/process modification | <b>d.</b> Substituting raw materials        | <b>f.</b> Reduction research/planning | <b>h.</b> Other     |

#### 6e WASTE REDUCTION IMPEDIMENT CODES

List one or more letter codes below of the items below that impeded your hazardous waste reduction plan and its results.

- |  |                                  |   |                                       |
|--|----------------------------------|---|---------------------------------------|
| <b>a.</b> Training or technical assistance | <b>c.</b> Economic practicality  | <b>e.</b> Tennessee hazardous waste regulations | <b>g.</b> High costs of HW Management |
| <b>b.</b> Technical feasibility            | <b>d.</b> Measurement/accounting | <b>f.</b> Implementation Previous Efforts       | <b>h.</b> Accidental generation       |
|  |                                  |   | <b>i.</b> Other                       |

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**6f CHANGE IN TOXICITY**

As a result of your reduction efforts, how does the toxicity of this hazardous waste for the current Annual Report compare to the last report? Check only one block: "increase," "Decrease," or "No change".

**6g NARRATIVE: EXPLAIN REPORTED DATA (IF APPLICABLE)**

Provide additional information including impediments to hazardous waste reduction that may demonstrate your efforts to reduce generation.

**6h NARRATIVE: IF NO NUMERIC GOAL EXPLAIN WHY**

Provide additional information if no numeric goal is specified (if applicable).